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09/912,723	07/23/2001	Mark A. Lauer	LAUM-004	5523

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EXAMINER
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KLIMOWICZ, WILLIAM JOSEPH

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/912,723

Applicant(s)

LAUER, MARK A.

Examiner

William J. Klimowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-14 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-4, 6-8, 10-14, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Soeno et al. (US 6,246,552 B1).

As per claim 1, Soeno et al. (US 6,246,552 B1) discloses a device (including 1, 2) for reading or writing information, the device comprising: an electromagnetic transducer (1) including a plurality of solid transducer layers (inherently provided, e.g., the poles and gap of an inductive head which must necessarily be present in order to operate), a substrate (e.g., 43) adjoining said transducer (1), said substrate (43) shaped as a rigid body adjacent to said transducer (1) and as a plurality of flexible elements (e.g., arms affixing (44) to frame (43) as

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seen in FIG. 5; or arms (431), (432) as seen in FIGS. 7(A,B), etc.) distal to said transducer (1), and an actuator (PZT elements between (44) and frame (43) as seen in FIGS. 5, 7, etc.) attached to said substrate (43) distal to said transducer (1).

As per claim 2, said actuator includes a layer of piezoelectric material (e.g. see, *inter alia*, COL. 17, lines 22-25).

As per claim 3, said actuator includes a layer of piezoelectric material, and said transducer layers are substantially parallel with said layer of piezoelectric material. That is, the transducer as seen, e.g., FIG. 5, has a dimensional attribute extending from the left to right side of the slider (laterally, as does the PZT elements sandwiched between electrodes (45)).

As per claim 4, said actuator includes a plurality of layers of piezoelectric material (e.g. see, *inter alia*, COL. 17, lines 22-25 and, e.g., FIG. 5, wherein there is depicted multiple piezoelectric elements).

As per claim 6, said flexible elements (e.g., FIG. 5 or FIG. 7A, 7B, etc.) are “substantially” aligned with a center of mass of said rigid body (43) (since they are symmetrically aligned with frame (43)).

As per claim 7, said rigid body (43) has a media-facing surface separated from a back surface in a Z-direction, and at least a portion of said flexible elements is disposed at a Z-height between said surfaces (e.g. FIG. 5).

As per claim 8, said flexible elements (e.g., arms affixing (44) to frame (43) as seen in FIG. 5; or arms (431), (432) as seen in FIGS. 7(A,B), etc.) are aligned substantially with a plane, and said rigid body (43) and said actuator (PZT elements between (44) and frame (43) as seen in FIGS. 5, 7, etc.) are intersected by said plane (since they are within the same plane; FIG. 5).

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As per claim 10, at least one of said flexible elements (e.g., arms affixing (44) to frame (43) as seen in FIG. 5; or arms (431), (432) as seen in FIGS. 7(A,B), etc.) contains a plurality of conductive leads. This is required in order to energize the PZT elements to provide actuation of the PZT elements.

Additionally, as per claim 11, the device further is defined as comprising (as per embodiment depicted in FIG. 21): a wafer substrate piece (3) disposed between an electromagnetic transducer (1) and an electrostrictive actuator (41, 45, 44 as seen in FIG. 21), said substrate piece shaped as a rigid body adjoining said transducer (1) and as a flexible element (flex arms of (3)) connecting said rigid body and said actuator.

As per claim 12, said actuator includes a layer of piezoelectric material (PZT elements between (44) and frame (43) as seen in FIG. 21).

As per claim 13, said actuator includes a layer of piezoelectric material (PZT elements between (44) and frame (43) as seen in FIG. 21), and said transducer (1) includes a plurality of layers (inherently provided, e.g., the poles and gap of an inductive head which must necessarily be present in order to operate) that are substantially parallel with said layer of piezoelectric material. That is, the transducer as seen, e.g., FIG. 21, has a dimensional attribute extending from the left to right side of the slider (laterally, as does the PZT elements sandwiched between electrodes (45)).

As per claim 14, said flexible element (e.g., arms of (3)) includes a plurality of flexible portions aligned substantially with a plane, and said rigid body and said actuator are intersected by said plane (e.g., a vertical plane that crosses flex arms of (3) and frame parts (43) as seen in FIG. 21).

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As per claim 19, said device includes means for providing electrical voltage to said actuator (the means are the electrical elements that are required to energized the PZT material of actuator (4)).

Additionally, as per claim 20, the device is further defined as comprising: an electromagnetic transducer (1) including a plurality of solid transducer layers (as discussed per claim 1 and/or 11), a substrate (e.g., 3 as seen in FIG. 21) adjoining said transducer (1), said substrate (3) shaped as a rigid body adjacent to said transducer (1) and as a plurality of flexible elements (flex arms of (3)) distal to said transducer (1), and actuation means (4) for positioning said transducer (1), said actuation means (4) attached to said substrate (3) "distal" to said transducer (1).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soeno et al. (US 6,246,552 B1) in view of Symons et al. (US 5,886,857).

See the description of Soeno et al. (US 6,246,552 B1), *supra*.

As per claims 9 and 17, although Soeno et al. (US 6,246,552 B1) does not expressly show wherein the back surface of (43) or (3) has a protrusion extending away from the media-facing surface, Official notice is taken that protrusions provided between sliders and their supports to

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allow for pitching motion of the slider relative to a medium surface, is a concept that is notoriously old and well known in the art. As just one example, Symons et al. (US 5,886,857) discloses such a conventional protrusion ("load dimple"), stating the well known purpose and advantages of such protrusions at COL. 1, lines 56-65:

The load point dimple transfers a predetermined load generated by the spring region of the load beam to the flexure and the head slider to counteract the aerodynamic force generated by the action of the air bearing against the head slider and to define the desired fly height. Such a load point dimple also provides clearance between the flexure and the load beam, and serves as a point about which the head slider can gimbal in pitch and roll directions so as to follow fluctuations in the disk surface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the back surface of (43) or (3) of Soeno et al. (US 6,246,552 B1) as having a protrusion extending away from the media-facing surface, as exemplified by Symons et al. (US 5,886,857).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the back surface of (43) or (3) of Soeno et al. (US 6,246,552 B1) as having a protrusion extending away from the media-facing surface, as exemplified by Symons et al. (US 5,886,857) in order to allow for pitching motion of the slider relative to a medium surface, thus allowing the slider to compensate for uneven disk surface topography, as is well known, established and appreciated in the art as exemplified by Symons et al. (US 5,886,857).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soeno et al. (US 6,246,552 B1) in view of Budde et al. (US 5,896,246).

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As per claim 18, although Soeno et al. (US 6,246,552 B1) remains silent with respect to the composition of the rigid body and actuator containing a material including silicon, Official notice is taken that actuators and their associated rigid bodies formed as containing the semiconductor silicon, are notoriously old and well known in the art. As just one example, Budde et al. (US 5,896,246) discloses wherein the composition of the rigid body and actuator containing a material including silicon for the express advantages of, *inter alia*, reducing thickness of the suspension assembly (COL. 5, lines 1-2); shock and resonance performance advantages (COL. 5, lines 12-16); simplified assembly and higher performance, etc. (COL. 5, lines 23-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the composition of the rigid body and actuator of Soeno et al. (US 6,246,552 B1) as containing a material including silicon.

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the composition of the rigid body and actuator of Soeno et al. (US 6,246,552 B1) as containing a material including silicon, in order to allow for ease of manufacture in forming active-state actuators, providing a material which lends itself to thin-film fabrication techniques, as is well known, established and appreciated in the art in addition to the reasons espoused by Budde et al. (US 5,896,246).

### ***Response to Arguments***

Applicant's arguments filed August 15, 2003 (Paper No. 7) have been fully considered but they are not persuasive.



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The Applicant alleges that:

Applicant respectfully disagrees with the Office Action assertion that Soeno discloses "a substrate (e.g., 43) adjoining said transducer (1)." In contrast, Soeno's "fixed part 43" is separated from its "electromagnetic transducer element 1" by "slider 2." For this reason alone claim 1 is not anticipated by Soeno. (See page 2 of Applicant's response, Paper No. 7.)

The Examiner maintains that the Applicant's allegation is unpersuasive. More concretely, as set forth in the claimed invention, Soeno et al. (US 6,246,552 B1) discloses an electromagnetic transducer (1) and a substrate (e.g., 43) adjoining said transducer (1).

More concretely, as best depicted in the embodiments of, by example only, Figures 2-5, the substrate (43) is "adjoining" the transducer (1), i.e., the transducer (1) is "next to" the substrate (43).

Clearly, the word "adjoining" as it relates to the claims terms "substrate" and "transducer" does not *require* the elements to be direct contact, as apparently alleged by the Applicant. Note that *Webster's II Riverside New College Dictionary* defines "adjoin" as:

1. To be next to.
2. To attach by joining -vi.
- To be in or nearly in contact.

The instant specification is completely silent with respect to the definition of the word "adjoining." The dictionary definition indicates that the use of the word "adjoining" merely requires that two elements or objects be next to each other, and possibly contacting one another, but are expressly not required to be in contact.

The Examiner therefore considers the scope of the claims, with respect to the recitations "a substrate (e.g., 43) adjoining said transducer (1)" to include the structures (43) and (1), which are clearly next to each other as shown in, e.g., the Figures 2-5 of Soeno et al. (US 6,246,552 B1). Claims are to be given their broadest reasonable interpretation during prosecution. See *In*

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*re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *In re Prater*, 415 F.2d 1393, 1404, 162 USPQ 541, 550 (CCPA 1969).

The Applicant further goes on to argue:

Applicant also respectfully disagrees with the Office Action assertion that Soeno discloses "an electromagnetic transducer (1) including a plurality of solid transducer layers (inherently provided, e.g., the poles and gap of an inductive head which must necessarily be present in order to operate)." The poles and gap of an inductive head can also be formed with an iron core mounted on the trailing end of a slider. The side views of Soeno (e.g., FIGS. 13 and 17) seem to show such an appendage mounted on the trailing end of "slider 2." Alternatively, sliders have also been formed with a magnetic (e.g., ferrite) substrate which forms part of the inductive head. This also could be the reason for the appendage shown in the side views. Thus Soeno does not disclose "an electromagnetic transducer including a plurality of solid transducer layers" that are naturally and necessarily present, and claim 1 is not anticipated by Soeno for this reason also. (See page 2 of Applicant's response, Paper No. 7.)

The Examiner again finds this argument unpersuasive. More concretely, as set forth in claim 1, Soeno et al. (US 6,246,552 B1) discloses an electromagnetic transducer (1) including a plurality of solid transducer layers which are inherently provided, e.g., the poles and gap of an inductive head which must necessarily be present in order to operate. Moreover, all that is required of the electromagnetic transducer is a head having just two solid layers. All examples cited by the Applicant in an attempt to obviate the Examiner's inherency position fail. That is, all magnetic transducers in order to operate must necessarily have at least two poles in order to create a flux bridging gap, as is necessarily recognized by one having ordinary skill in the art, and all that is required for the electromagnetic transducer of claim 1, which includes "a plurality of solid transducer layers" is merely at least two layers, which could in fact be two poles of the head.

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The Applicant further argues:

Applicants note that the Office Action defines "a plurality of flexible elements" as "arms affixing (44) to frame (43)" and also defines "an actuator" as "PZT elements between (44) and frame (43)." In contrast, claim 1 defines a "substrate shaped as a rigid body adjacent to said transducer and as a plurality of flexible elements distal to said transducer, and an actuator attached to said substrate distal to said transducer." For this reason also Soeno does not anticipate claim 1.

The Examiner again is not persuaded. Moreover, as set forth in the rejection, *supra*, as per claim 1, Soeno et al. (US 6,246,552 B1) discloses the substrate (43) shaped as a rigid body adjacent to said transducer (1) and as a plurality of flexible elements (e.g., arms affixing (44) to frame (43) as seen in FIG. 5; or arms (431), (432) as seen in FIGS. 7(A,B), etc.) distal to the transducer (1), and an actuator (PZT elements between (44) and frame (43) as seen in FIGS. 5, 7, etc.) attached to the substrate (43) distal to the transducer (1). Clearly, elements, e.g., arms affixing (44) to frame (43) as seen in FIG. 5; or arms (431), (432) as seen in FIGS. 7(A,B), etc. move/bend/flex relative to the outer perimeter of the substrate (43). Moreover, an actuator is provided (PZT elements between (44) and frame (43) as seen in FIGS. 5, 7, etc.) and is attached to the substrate (43) distal to the transducer (1).

The Applicant further argues:

Applicant respectfully disagrees with the Office Action assertion that Soeno discloses "a wafer substrate piece (3)"..."adjoining said transducer (1)." In contrast, Soeno's "suspension 3" is separated from its "electromagnetic transducer element 1" by "slider 2." For this reason claim 11 is not anticipated by Soeno. Moreover, applicant respectfully disagrees with the Office Action assertion that Soeno discloses "a wafer substrate piece (3)." Instead, Soeno states "The suspension 3 is formed by bending, punching or otherwise processing a resilient stainless sheet." See column 1, lines 43-45.

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The Examiner is again not persuaded. Moreover, as clearly articulated in the paragraph pertaining to the definition of the word “adjoining,” such a word does not require “contact,” as is apparently alleged by the Applicant, between the wafer substrate piece and the transducer. More concretely, Soeno et al. (US 6,246,552 B1) discloses a wafer substrate piece (3) disposed between an electromagnetic transducer (1) and an electrostrictive actuator (41, 45, 44 as seen in FIG. 21). The substrate piece shaped as a rigid body is “adjoining” the transducer (1) and as a flexible element (flex arms of (3)) connecting the rigid body and the actuator.

The Examiner further contends that Soeno et al. (US 6,246,552 B1) discloses a wafer substrate piece (3). Moreover, although the substrate piece is formed such that it is of stainless steel composition, it is a wafer in the sense that it is a thin substrate used for support. The Examiner notes that the term “wafer” has been used in prior patent literature to describe elements that are indeed formed of stainless steel and are thin substrates. The Examiner evidences, *inter alia*, US Patent Nos. 4,636,047, which generally recites “wafers” formed of steel; 5,417,294, which recites a stainless steel wafer (106), and 6,170,088, which discloses a steel wafer (114). These patent references are clearly illustrative of the broad meaning of the term “wafer,” wherein the term “wafer” is not limited to an exclusive material composition, but can be formed of many materials.

With regard to Applicant’s arguments pertaining to claim 20, the Examiner directs the Applicant’s attention to the Examiner’s response as it pertains in a similar matter to claim 1.

With regard to Applicant’s traversing the Official notice set forth regarding claims 9, 17 and 18 in the Office action, the Examiner has submitted references to support the Official notice.

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Since Applicant has timely traversed the Official notice, the Examiner's citation of two references as it pertains to the rejection of claims 9 and 17 as well as claim 18 is NOT a new grounds of rejection, but is merely supporting the position originally set forth by the Examiner in the previous Office action, in full accordance with USPTO policy, practice and procedure.

The Examiner has responded to each of the items of the Applicant's response (Paper No. 7), showing that the Office Action has clearly set forth a prima facie case of anticipation or obviousness for the claims, by a preponderance of the evidence.

Pertaining to the claims rejected under 35 U.S.C. § 102 as being anticipated by the disclosure of Soeno et al. (US 6,246,552 B1) the following should be noted. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); *cert. dismissed*, 468 U.S. 1228 (1984); *W.L. Gore and Associates, Inc. v. Garlock, Inc.*, 72.1 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

The Examiner, as clearly articulated in the rejection, *supra*, has set forth a one-to-one correspondence with each and every element of the *claimed* invention. More concretely,

As recited MPEP§2106:

Office personnel are to give claims their ***broadest reasonable interpretation*** in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). ***Limitations appearing in the specification but not recited in the claim are not read into the claim.*** *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During

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patent examination the pending claims must be interpreted as broadly as their terms reasonably allow. . . . The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed. . . . An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.”). [Emphasis in bold italics added].

Moreover, one must also bear in mind that limitations contained within Applicant’s arguments cannot be read into the claims for the purpose of avoiding prior art. *In re Sporck*, 386 F.2d 924, 155 USPQ 687 (CCPA 1968).

As set forth in the MPEP§ 706, “the standard to be applied in all cases is the “preponderance of the evidence” test. In other words, an examiner should reject a claim if, in view of the prior art and evidence of record, it is more likely than not that the claim is unpatentable.” Clearly, the Examiner has established that one of ordinary skill in the art would *reasonably* construe the one-to-one correspondence with each and every element of the *claimed* invention, in the manner set forth in the rejection, *supra*, by at least the *preponderance* of the evidence. The Applicant’s arguments have fallen well short of rebutting the Examiner’s *prima facie* case of anticipation.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

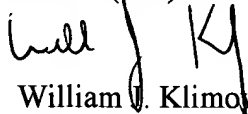
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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (703) 305-3452. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

  
William J. Klimowicz  
Primary Examiner  
Art Unit 2652

WJK  
September 24, 2003